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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/325,603	06/03/1999	ALLAN SVENDSEN	4394.214-US	3011

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EXAMINER

SLOBODYANSKY, ELIZABETH

ART UNIT PAPER NUMBER

1652

DATE MAILED: 12/04/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action SummaryApplication No.
09/325,603Applicant(s)
Svensden et al.Examiner
Elizabeth SlobodyanskyGroup Art Unit
1652☒ Responsive to communication(s) filed on Sep 28, 2001☐ This action is **FINAL**.☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims☒ Claim(s) 81-86 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.☒ Claim(s) 81-86 is/are rejected.☐ Claim(s) _____ is/are objected to.☐ Claims _____ are subject to restriction or election requirement.**Application Papers**☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.☐ The drawing(s) filed on _____ is/are objected to by the Examiner.☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119**☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.☐ received in Application No. (Series Code/Serial Number) _____.☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)**☐ Notice of References Cited, PTO-892☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____☐ Interview Summary, PTO-413☐ Notice of Draftsperson's Patent Drawing Review, PTO-948☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Request for Continued Examination

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 28, 2001 has been entered.

The amendment filed September 28, 2001 canceling claims 71 and 76-78 and adding claims 79-84 has been entered.

The examiner has noted that claims 79 and 80 have been added by the AF amendment of March 2, 2001 but have not been entered. In accordance with 37 CFR § 1.126, when claims are added, they must be numbered by the applicant consecutively beginning with the next following the highest numbered claim previously presented (whether entered or not). Therefore, the claims have been renumbered 81-86 with the dependencies changed accordingly. The new numbers have been used thenceforth.

Claims 81-86 are pending.

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Claim Objections

Claim 85 is objected to because of the following informalities: it does not end with a period. Appropriate correction is required.

Applicant is advised that should claim 81 be found allowable, claims 84 and 86 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

As indicated below, the terms by which these claims vary are unclear, rendering the scope of the claims the same.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 83 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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The claim recites the specific fragments of SEQ ID NO: 2 such as 1-103, 206-305, 104-205 and 396-483. The Examiner is unable to locate adequate support in the specification for such fragments of SEQ ID NO:2. Thus there is no indication that these specific fragments were within the scope of the invention as conceived by Applicants at the time the application was filed.

Accordingly, Applicants are required to cancel the new matter in the response to this Office Action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 81-86 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 81 recites as step (a) "generating a three dimensional model of an alpha-amylase" (emphasis added). The claim is unclear because the generated three dimensional model should be of the parent alpha-amylase not any alpha-amylase.

Further it is unclear how the identifying is carried out in step (b). It can be done by comparing three dimensional structures of the parent amylase and the amylase of SEQ ID NO:13, for example.

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Claim 82 is unclear because of the recitation of “modeling methods”. The metes and bounds of the term “modeling methods” are not clearly defined rendering the scope of the claim unascertainable.

Claim 84 recites as step (a) “ generating a model of a three dimensional structure of an alpha-amylase structure, defined by the atomic coordinates shown in Appendix 1” (emphasis added). The claim is confusing as it appears to refer to the three dimensional structure of SEQ ID NO:13 not to the structure of the parent amylase. As mentioned with regard to claim 81, the generated model should be of the parent alpha-amylase not any alpha-amylase.

Claim 86 recites as step (a) “ generating a model of a three dimensional structure of an alpha-amylase structure” (emphasis added). The claim is unclear because the generated model should be of the parent alpha-amylase not any alpha-amylase.

Further it is unclear how the utilizing is carried out in step (b) an addition to using “modeling methods”. Further, the metes and bounds of the term “modeling methods” are not defined rendering the scope of the claim unascertainable.

Claims 83 and 85 are rejected as dependent from the rejected base claims.

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Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 81-86 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No.

5,989,169. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are claiming common subject matter, as follows:

a method for producing a variant of a parent alpha-amylase having 70% homology to

SEQ ID NO:13 using three-dimensional structure of SEQ ID NO:13 depicted in

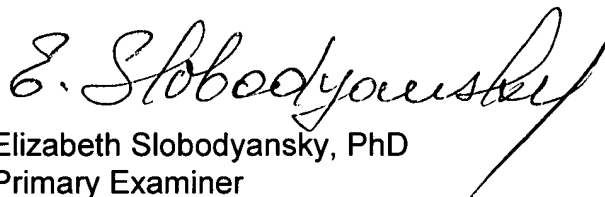
Appendix.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Slobodyansky whose telephone number is (703) 306-3222. The examiner can normally be reached Monday through Friday from 9:30 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy, can be reached at (703) 308-3804. The FAX phone number for Technology Center 1600 is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Center receptionist whose telephone number is (703) 308-0196.

A handwritten signature in cursive script, reading "E. Slobodyansky". The signature is written in black ink and is positioned above the printed name and title.

Elizabeth Slobodyansky, PhD
Primary Examiner

November 29, 2001